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the walls of the chamber during operation, and serves to minimize or prevent the atomized wire feed material from applying itself to the walls of the combustion chamber 118. Instead, the flowing boundary layer of air moves the material across the surface and out through the opening 22. By reducing the heat and the sticking of wire feed material to the combustion chamber walls, the cost of maintenance and replacement of the air cap is greatly reduced.

Please replace paragraph [0031] on pages 9-10 with the following paragraph:

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[0031] As shown best in Figures 3 and 5, the air cap 24 is preferably supported and allowed to rotate around the nozzle 10 by a porous bushing 122 which is disposed about the plug 108 on its inner diameter surface and mounts the air cap 24 about its outer diameter, defining an annular air gap 124 between an outer cylindrical surface of the outer tube 30 (or its plug extension 108) and an inner cylindrical surface of the air cap 24 which open to the combustion chamber 118 and axially downstream of the bushing 122. The bushing 122 is formed with at least one and preferably a plurality of openings 126 to provide for the passage of air delivered at a predetermined flow rate through an annular space formed by the inner diameter of the rotating extension tube 128 and the outer diameter of the outer tube 30 of the nozzle 10 into the air gap 124 through the bushing 122. The concentric cylindrical walls of the air gap 124 sets up a column of air which flows along and parallel to the inner surface 130 of the air cap 24. The column of air is maintained across the entirety of the inner surface 130 to protect the air cap 24 and exits the air cap 24 through the opening 22. As also shown in Figure 3, the walls of the combustion chamber are curvilinear and without any abrupt changes in dimension or direction that would disturb the maintenance of the protective boundary layer, including any undercuts or pockets adjacent the opening 22 or other features that would effectively form an eddy that would disturb the flow of the boundary layer. The air also mixes with the combustion gases to some degree and reacts with the feed material to assist in the consumption of the feed wire.
